

WHAT IS CLAIMED IS:

Sub 1. A fuel injection valve body for a direct injection type internal combustion engine that injects fuel directly into a combustion chamber of an internal combustion engine, comprising:

a nozzle body tip at a tip portion of said fuel injection valve body, wherein said nozzle body tip is formed with a nozzle hole and formed in a protruded shape without forming a corner portion or a recessed portion on a surface thereof.

2. The fuel injection valve body for a direct injection type internal combustion engine according to claim 1, wherein:

the nozzle body tip protrudes in a conical shape and the tip of the conical shape is spherical.

3. The fuel injection valve body for a direct injection type internal combustion engine according to claim 1, wherein:

the nozzle body tip is spherical.

4. A fuel injection valve body for a direct injection type internal combustion engine that injects fuel directly into a combustion chamber of an internal combustion engine, comprising:

a nozzle body tip at a tip portion of said fuel injection valve body, wherein said nozzle body tip is formed with a nozzle hole and formed into a protruded shape without forming a corner portion or a recessed portion on a surface thereof; and

a cap disposed on an outer periphery of the nozzle body tip so as to secure the nozzle body tip to a main body of the fuel injection valve body; wherein:

the nozzle body tip and a tip portion of the cap form a continuous tip portion of the fuel injection valve body, and continuous tip portion is formed in a protruded shape without forming a corner portion or a recessed portion on a surface thereof.

5. The fuel injection valve body for a direct injection type internal combustion engine according to claim 4, wherein:

the continuous tip portion protrudes in a conical shape and the tip of the conical shape is spherical.

6. The fuel injection valve body for a direct injection type internal combustion engine according to claim 4, wherein:

the continuous tip portion is spherical.

7. A fuel injection valve body for a direct injection type internal combustion engine that injects fuel directly into a combustion chamber of an internal combustion engine, comprising:

a nozzle body tip at a tip portion of said fuel injection valve body, wherein the nozzle body tip is formed with a nozzle hole;

a cap disposed on an outer periphery of the nozzle body tip so as to secure the nozzle body tip to a main body of the fuel injection valve body, wherein a part of the nozzle body tip is covered with a tip portion of the cap through a gap.

8. The fuel injection valve body for a direct injection type internal combustion engine according to claim 7, wherein:

the nozzle body tip is formed in a protruded shape without forming a corner portion or a recessed portion on a surface thereof.

9. The fuel injection valve body for a direct injection type internal combustion engine according to claim 7, wherein:

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the nozzle body tip protrudes in a conical shape and the tip of the conical shape is spherical.

10. The fuel injection valve body for a direct injection type internal combustion engine according to claim 7, wherein the nozzle body tip is spherical.

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